



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,876	01/23/2002	Michael Johnson	256.116US1	8875

128 7590 03/22/2006

HONEYWELL INTERNATIONAL INC.
101 COLUMBIA ROAD
P O BOX 2245
MORRISTOWN, NJ 07962-2245

EXAMINER

STREGE, JOHN B

ART UNIT	PAPER NUMBER
----------	--------------

2624

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,876

Applicant(s)

JOHNSON ET AL.

Examiner

John B. Strege

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Response to Amendment

1. The amendment received 12/27/05 has been entered in full.

Response to Arguments

2. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, and 12-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis et al. USPN 5,673,331 (hereinafter "Lewis").

Lewis discloses a method of processing an image, comprising: receiving one or more sub images within an image; separating each sub image from the image (col. 7 lines 25-32 disclose that a video camera captures one or more signal of a meter, converts the signals to a digital representation, and each region of the digital representation that corresponds to the scale of a meter is calibrated, thus one or more sub images are received and each sub image is separated from the image); associating a template with each sub image (col. 5 lines 19-22); using one or more feature vectors associated with each template to locate one or more features within the sub images, wherein the feature vectors are represented as a collection of three pixel coordinates

(col. 5 lines 19-22 disclose that the image calibrator 7 creates a needle template, and col. 4 lines 44-62 disclose that the image calibrator performs the functions of defining the required parameters for each meter appearing in the digitized image [read as the feature vector] in which the pivot pixel point of the needle is used as well as the leftmost pixel point of travel and the rightmost pixel point of travel of the needle [thus a collection of three pixel coordinates]); and processing one or more rules associated with one or more of the located features (col. 5 lines 41-60, and col. 7 lines 33-64, the Examiner notes that by carrying out the procedure the invention is using rules).

Regarding claim 2, Lewis discloses calculating an instrument reading using one or more associated rules (col. 7 line 33-49).

Regarding claim 3, Lewis discloses storing the meter reading, thus it must be transmitted to memory (col. 7 lines 50-55).

Regarding claim 4, as discussed the sub images represent meter panels.

Regarding claim 5, Lewis discloses that the method can be synchronized such that the steps are repeated (col. 7 lines 50-64).

Regarding claim 6, the period is customizable (col. 7 lines 50-64).

Claim 7 is similar to claim 1, except claim 7 is broader since there are no templates disclosed. Thus all of the limitations of claim 7 have been addressed in the rejection of claim 1.

Regarding claim 8, Lewis discloses calibrating the isolation step (col. 4 lines 38-65).

Regarding claim 9, Lewis discloses determining a degree of angular orientation associated with calibrating and using the angular orientation in isolating each image feature (col. 5 lines 1-17).

Regarding claim 10, as discussed the instrument is a control panel.

Claim 12 is similar to claim 1 except that claim 12 is a broader claim, thus the same arguments used for claim 1 apply equally to claim 12.

Claims 13-14 are similar to claim 1 except claims 13-14 are computer readable medium claims, thus the same arguments used for the rejection of claim 1 apply equally to claims 13-14.

Regarding claims 15-17, as discussed Lewis discloses associating an instrument reading with the feature image and that the reading depends on the orientation of feature image within the image data (col. 6 lines 31-37).

Regarding claim 18, Lewis discloses using optical character recognition to determine digits (col. 6 lines 11-16).

Claim 19 is similarly analyzed to claims 1 and 12.

Regarding claim 20, as discussed Lewis discloses storing the data thus the data must be transmitted to memory.

Regarding claim 21, Lewis discloses parameter data (attribute data) that is used by the algorithm (rules data, col. 5 lines 40-60).

Claim 22 is similarly analyzed to claim 1.

Regarding claims 23 and 25, Lewis discloses a mapping set of executable instructions to map the location to a value (col. 5 lines 40-60).

Regarding claim 24, as discussed the value is associated with a reading on an instrument panel.

Regarding claims 26-27, Lewis discloses a camera controlling set of executable instructions operable to capture one or more additional images at configurable periods (col. 3 lines 29-45, col. 7 lines 50-64).

Regarding claim 28, Lewis discloses an image enhancing set of instructions operable to improve a quality associated with the image (col. 6 lines 4-16).

Regarding claim 29, Lewis discloses a calibration set of executable instructions operable to calibrate the captured image (col. 4 lines 38-67).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. USPN 5,673,331 (hereinafter "Lewis").

Regarding claim 11, Lewis does not explicitly disclose that the meter is used in an aircraft, marine vehicle, or land vehicle. However the invention of Lewis applies to any type of meter and it is well known that airplanes, marine vehicles, and land vehicles have meters, thus the Examiner declares official notice that it would be obvious to use a

meter in an airplane, vehicle, etc. The motivation is that the meters in vehicles need to be monitored.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,845,177 Method and Apparatus for monitoring an analog meter.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Strege whose telephone number is (571) 272-

7457. The examiner can normally be reached on Monday-Friday between the hours of 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS


BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600